ABSTRACT OF THE DISCLOSURE

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Methods for the preparation of a lipid-nucleic acid composition are provided.
According to the methods, a mixture of lipids containing a protonatable or deprotonatable lipid,
for example an amino lipid and a lipid such as a PEG- or Polyamide oligomer-modified lipid is
combined with a buffered aqueous solution of a charged therapeutic agent, for example
polyanionic nucleic acids, to produce particles in which the therapeutic agent is encapsulated in a
lipid vesicle. Surface charges on the lipid particles are at least partially neutralized to provide
surface-neutralized lipid-encapsulated compositions of the therapeutic agents. The method
permits the preparation of compositions with high ratios of therapeutic agent to lipid and with
encapsulation efficiencies in excess of 50%.